

REMARKS / ARGUMENTS

Claim Amendments

By the present amendment, claims 49, 78 and 82 have been amended and claims 73-75, 79-81 and 83-85 have been cancelled. Claims 49, 50, 78, and 82 are currently pending in the present application.

The amendments to the claims have been made without prejudice and without acquiescing to any of the Examiner's objections. The Applicants reserve the right to file any of the canceled subject matter in a divisional patent application. The Applicants submit that no new subject matter has been added by way of the present amendment and entry of the claim amendments is respectfully requested.

The Office Action dated December 26, 2007 has been carefully considered. It is believed that the claims submitted herewith and the following comments represent a complete response to the Examiner's rejections and place the present application in condition for allowance. Reconsideration is respectfully requested.

Claim Objections

The Examiner has objected to the numbering of the claims as containing two claims numbered 81. The Examiner renumbered mis-numbered claim 81 as claim 82 and renumbered the subsequent claims in the previous office action. The Applicant thanks the Examiner and notes that the renumbering is reflected in the current claim set.

The Examiner alleges that claims 79-81 and claim 83-85 are withdrawn from consideration as they are directed to non-elected inventions. The Applicant respectfully disagrees as the claims include the 10 elected probes as well as additional probes. The addition of additional claim elements (e.g the additional probes), narrows the scope of the claims; thus the elected subject matter is within the scope of the previous claims 79-81 and 83-85. Although the Applicant disagrees, the Applicant has none the less cancelled claims 79-81 and 83-85 in order to advance prosecution.

The Examiner further alleges that claims 73-75 are drawn to a non-elected invention as claims 73 to 75 are drawn to a single isolated nucleic acid. The Applicant respectfully disagrees, but has cancelled claims 73-75 in order to facilitate allowance.

35 USC § 112, first paragraph

The Examiner has rejected claims 49, 50, 78 and 82 pursuant to 35 USC §112, first paragraph as failing to comply with the written description requirement. The Examiner asserts that claims 49 and 50 encompass an array of two or more nucleic acids "as shown in" the listed SEQ ID NOs; sequences prepared using specific amplification and primer pairs in the listed SEQ ID NOs; or fragments that specifically bind to one ABC transporter gene. Further, the Examiner asserts that claims 78 and 82 are drawn to "any" nucleic acid that specifically hybridizes to nucleic acids that are broadly viewed to encode the specifically claimed ABC transporters and thus encompasses an enormous genus of nucleic acids. The Examiner alleges that "specifically hybridizes to" includes minimum cross hybridization which is not defined in the specification and concludes that minimum cross hybridization broadly encompasses "any" cross hybridization.

Claims 49 and 50

In order to facilitate allowance, the Applicant has amended claim 49 to remove previous paragraphs (b) and (d) and has replaced the phrase "as shown in" with the term "of". Claim 50 depends on claim 49 and thereby incorporates the aforementioned amendments. Accordingly, amended claims 49 and 50 now claim specific nucleic acids defined by SEQ ID NOs: 12, 15, 21-26, 35 or 44, or said nucleic acids where T can be U. The Applicant has amended claim 49 to remove recitation of "specifically hybridizes to one ABC transporter". Accordingly this objection with respect to claims 49 and 50 is now moot.

Claims 78 and 82

In order to facilitate allowance, the Applicant has amended claim 78 to remove previous paragraphs (b) and (d). Claim 82 depends on claim 78 and thereby incorporates this amendment. Claim 78 claims an array comprising at least 10 nucleic acid probes, wherein 10 of the probes consist of: "a probe that specifically hybridizes to a nucleic acid sequence" encoding a specific human ABC transporter. However, the nucleic acid sequence of each

probe is specifically defined by the SEQ ID NOs: 12, 15, 21-26, 35 or 44 or said nucleic acids where T can be U.

As the probes are specifically defined by structure (e.g. the claimed SEQ ID NOs), the Applicant respectfully submits that claims 78 and 82 do not encompass "any" nucleic acid that specifically hybridizes to nucleic acids that encode the specifically enumerated ABC transporters.

Accordingly, the Applicant respectfully submits that the amended claims satisfy the written description requirement as the nucleic acid sequences are specifically defined by structure (e.g. sequence) as taught by the application as filed.

In view of the foregoing, the Applicant respectfully requests that the rejection to claims 49, 50, 78 and 82 pursuant to 35 USC § 112, first paragraph be withdrawn.

35 USC §112, Second Paragraph

The Examiner has rejected claims 49-50 and 82 as being indefinite for failing to particularly point out and distinctly claim the subject matter the Applicant regards as the invention. Specifically the Examiner alleges that it is unclear if claims 49 and 50 are drawn to a nucleic acid that specifically hybridizes to a single ABC transporter gene or nucleic acids that bind to any ABC transporter genes. As mentioned above, the Applicant has deleted part (d) in claim 49 which recited a nucleic acid that hybridized to "one ABC transporter gene". Accordingly the objection to claim 49 and claim 50 is now moot.

Regarding claim 82, the Examiner alleges that it is unclear if the second recitation of "the nucleic acid sequence" is referring to the probe or the human ABC transporter gene. Accordingly the Applicant has amended claim 82 to clarify that the second recitation "of the nucleic acid sequence" refers to the probe. For example, the Applicant has amended the claim to read: "wherein the nucleic acid sequence of the probe that specifically hybridizes to the nucleic acid sequence encoding human ABC transporter B1₁ is the nucleic acid sequence consisting of SEQ ID NO. 12".

In light of the above, the Applicant respectfully requests that the objections to the claims under 35 USC §112, second paragraph be withdrawn.

35 USC § 102(b)

The Examiner has rejected claims 49-50 and 78 pursuant to 35 USC § 102(b), as being anticipated by Deneffe et al (WO02/46458) and Brennan (US Patent 5474796).

As mentioned above, the Applicant has amended claims 49 and 78 to delete paragraphs (b) and (d). Claim 50 depends on claim 49 and thereby incorporates the amendment. The amended claims denote specific nucleic acid sequences. The Applicant respectfully submits that neither Deneffe et al. or Brennan disclose the specific nucleic acid sequences currently claimed. Further neither Deneffe et al. or Brennan et al. suggest the nucleic acid sequences currently claimed.

Deneffe et al. discloses sequences of some of the members of ABC transporter family A, whereas the current claims are directed to nucleic acid sequences related to members of the the ABC transporter families B, C, D and G (namely ABCB1, ABCB4, ABCB11, ABCC1, ABCC2, ABCC3, ABCC4, ABCC5, ABCD1 and ABCG2).

The Applicant also submits that Brennan does not teach the specific sequences currently claimed. Brennan relates to methods of making array plates and does not even mention ABC transporter sequences. Accordingly Brennan cannot anticipate the claims as amended.

In light of the foregoing, the Applicant respectfully requests that the rejection to claims 49-50 and 78 pursuant to 35 U.S.C. § 102(b), be withdrawn.

Early and favorable action on the merits is awaited. Should the Examiner deem it beneficial to discuss the application in greater detail, the Examiner is invited it contact Patricia Folkins by telephone at (416) 957-1683 at the Examiner's convenience.

The Commissioner is hereby authorized to charge any deficiency in fees or credit any overpayment to our Deposit Account No. 02-2095.

Respectfully submitted,

BERESKIN & PARR

By 

Katina Loucaides
Reg. No. 56,622

Bereskin & Parr
Box 401, 40 King Street West
Toronto, Ontario
Canada M5H 3Y2
Tel: 416-957-1683
Fax: 416-361-1398